

# Nutrition Policy Research That Can Lead to Reduced Childhood Obesity in the U.S.

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## Introduction

One of the clear insights from obesity prevention research over the past few years is the potential for impactful, sustainable, and cost-effective policy change. This insight draws on lessons of the campaign to reduce tobacco use in the U.S. The tobacco campaigns clearly demonstrated the power of policy and regulatory change to promote healthier behavior. Although treatment and educational programs also have helped to reduce smoking, three key sets of policies drove down smoking rates in the U.S.: (1) the ban on advertising cigarettes on television; (2) the imposition of substantial taxes on tobacco; and (3) smoking restrictions in public spaces.<sup>1</sup> The combination of these policies has saved countless lives. Policy-based strategies have been a powerful method of tobacco control and also have formed the basis of many other successful public health achievements such as vaccinations, motor-vehicle safety, safer foods, and safer workplaces. Thus, using policy approaches to modify the food environment could be a powerful tool to reduce obesity at the population level. As with tobacco control, addressing the epidemic of obesity in the U.S. will require major policy and contextual changes.

Although dietary and eating behavior and obesity development are complex and are influenced by multiple factors, policy approaches to promote healthy eating provide important tools that can be applied in many settings where children and adults spend their time. Policy change at local, state, and national levels can make it more likely that healthy choices are the easy choices<sup>2</sup> and that both children and adults can reduce their excess intake of nutritionally empty or harmful foods and beverages and decrease their obesity risk. The authors in the accompa-

nying eight papers in this supplement to the *American Journal of Preventive Medicine* provide a wide range of examples of how policies can improve access to and improve the selection of healthy foods and beverages.<sup>3–10</sup> These include studies based in tribal settings,<sup>3</sup> in small stores in rural Texas,<sup>4</sup> and a study on menu labeling with a county board of health in Washington State.<sup>5</sup> Other papers discuss developing a fresh food retailer initiative in New Orleans<sup>6</sup> and describe the successes and challenges of increasing access to water in school and after-school settings in Boston.<sup>7,8</sup> These papers provide a useful glimpse into the broad and varied policies and regulatory changes that can be used to promote healthy eating and drinking and reduce obesity at a population level—reaching large numbers of people.

Nutrition and obesity policy research is vitally important—because it can provide answers to which policy approaches are most effective, including evidence of effectiveness and impact, cost and cost effectiveness, feasibility, sustainability, and impact on disparities. Policy research can indicate which approaches potentially are wasting resources that could be better spent on other strategies, and which interventions have the greatest impact on population health and priority subpopulations (such as racial/ethnic minorities and children/youth), which then can be used to inform policy decision making and resource allocation. Yet, obesity policy research is relatively new and still in an embryonic stage<sup>11</sup> and much is to be learned about the effectiveness of proposed or implemented obesity prevention policies.

What are the critical needs of nutrition and obesity policy research? One continuing need is for the careful evaluation of new interventions as well as of existing policies. Policymakers want to know whether an intervention is effective, what it costs, and whether it is feasible; they ideally want an assessment of its cost effectiveness, its “value for money.”<sup>12</sup> There are many and varied obesity prevention policy efforts that are taking place at national, state, and local levels, such as menu labeling initiatives; federal procurement guidelines for healthier foods and beverages in government buildings; the Healthy Hunger Free Kids Act (school meal programs and foods sold outside school meals); efforts to promote

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breastfeeding via Baby-Friendly hospitals; state and local initiatives to implement nutrition, physical activity, and screen-time standards in child care settings; and state and community programs funded through stimulus funds and the Affordable Care Act that have provided information to decision makers to consider policy change that focuses on increasing physical activity and improving dietary intake.<sup>13</sup> However, evaluation of these initiatives is often limited or nonexistent.

There are many opportunities to conduct evaluations as new policies constantly arise. Policy evaluations can often make use of powerful “natural experimental” and “rapid response” designs as noted in the article in this supplement by Blanck and Kim.<sup>14</sup> Policy research also can use predictive mathematical modeling to develop mathematical simulations of an intervention and can estimate potential impact.<sup>15</sup> Economic research also is critical in estimating the cost of interventions, food pricing and its influence on food consumption, and the effects of food taxes or financial incentives to encourage healthy food choices.

An additional need is for evaluations to use some common metric of effect when looking at the impact of varied nutrition- and obesity-focused policies. Current discussions may refer to “evidence-based” strategies, but because results are expressed in a wide range of different outcomes, comparisons are difficult. A promising approach makes use of “energy gap” models that express results in a common metric (e.g., kilocalories/day) and that can be used to translate energy imbalance into change in body weight.<sup>16</sup>

Another need is for new and innovative policy interventions. Ideally, these policies should affect population health; demonstrate sustainability, reach, and cost effectiveness; and be able to be implemented in communities where they are most needed (e.g., low-income communities) throughout the U.S. Policy change is evolving continually, and new opportunities constantly arise along with technologic and cultural change. For example, in the mid-2000s, there was a move to promote bottled water as a counter to sugar-sweetened beverages. Now because of ecologic and environmental concerns, the push is on to increase access to fresh public drinking water through water fountains, hydration stations, and cups and pitchers in schools,<sup>7</sup> after school,<sup>8</sup> and early child care centers. At the same time, there is a focus on reducing the ecologic impact by reducing the use of plastic bottles in favor of recyclable materials for serving water. As policy ideas and options keep evolving and changing, researchers need to continually build the science base and evaluate policies that are important to decision makers and have the potential to reduce obesity and improve the population health of Americans.

More food and nutrition policy research is clearly needed to identify the most cost-effective and high-

impact policy and environmental change strategies to turn around the child obesity epidemic, especially among populations most affected. This information is needed to inform policymaking and resource allocation. This will require transdisciplinary research teams and more funding opportunities. To date, a good deal of the nutrition and obesity prevention policy research has been funded by the Robert Wood Johnson Foundation’s Healthy Eating Research program; the CDC (e.g., the Nutrition and Obesity Policy Research and Evaluation Network or NOPREN); and the National Collaborative on Child Obesity Research (NCCOR, including RWJF, CDC, USDA, and NIH). Do current trends in research funding mean that policy research funding will decline over the next few years? It is hard to see how science can help reverse the obesity epidemic in the U.S. if funding to evaluate the most promising levers of change is declining. This is another set of policy changes worth evaluating.

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